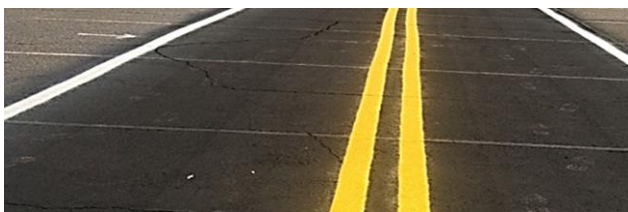




North Carolina Department of Transportation
Transportation Program Management Unit - Value Management
Innovative Technologies and Products Awareness Report
June 28, 2017

PRODUCT INNOVATION – PATTERN MASKING & PERFORMANCE PAVEMENT MARKINGS

Pattern masking is a black surface coating applied to a pavement surface when traffic patterns for work zones are revised. The masking covers the entire surface to provide a high-contrasting uniform surface to apply the new yellow and white performance lines as seen in the image below.



The placement of performance pavement markings on top of the pattern masking allows for clear lane delineations for drivers in work zones. The use of pattern masking eliminates the need to remove existing pavement markings using mechanical grinding, which may damage the roadway surface and create confusing pavement markings, as seen in the image below.



Requirements for the system include:

- A pavement masking thickness of 20 mil to ensure a 12-month service life (typical revised traffic pattern timeframe);
- A matte/non-glossy finish application to prevent glare
- Applying the masking in 6' minimum widths to ensure a uniform application in a lane;
- UV resistance (black color must not fade before 12 months);
- No Volatile Organic Compounds (VOCs) or petroleum;
- The ability to be resurfaced without removal of the masking and markings.

The pavement masking and performance pavement marking system was first field tested on the US 17/74 project in Wilmington. Lessons learned from the field test have resulted in adjustments which provide enhanced performance. NCDOT now requires this product in all Design-Build interstate projects to improve safety for motorists and workers in addition to saving time and money through the quick application process.

NCDOT is the first state to use this pavement masking and performance marking system. It was developed by Mr. Steve Kite, P.E. of NCDOT's Work Zone Traffic Control Unit and Magnolia Advanced Materials, Inc.

PRODUCT HIGHLIGHT – STALITE LIGHTWEIGHT AGGREGATE

1 lbs. Of Material per Cylinder



Stalite Lightweight Aggregate (SLWA) is produced primarily in Gold Hill, NC. Through a 2200°F heating process, slate rock is expanded to produce a high quality aggregate that is structurally strong, durable, and environmentally friendly. This lower-weight aggregate product can save material, labor, and transportation costs. It is used as a component in various highway construction applications including: asphalt surface treatments, concrete bridge decks, retaining wall backfill, and slope and subgrade stabilization.

For more information, including images of project locations in NC, follow the link to their website: <http://www.stalite.com>